

Abstract

The present invention relates to a gas sensor for measuring at least one gas concentration, in particular for a vehicle climate control system, having
a substrate (2),

- 5 an IR radiation source (3) fastened on the substrate,
an IR detector (4) fastened on the substrate,
a measurement chamber (9) for receiving a gas having the gas concentration that is to be measured,
a shielding device (12) situated in the measurement chamber (9) between the IR radiation
10 source (3) and the IR detector (4), for shielding a direct transmission of IR radiation (S) from
the IR radiation source (3) to the IR detector (4) along an optical axis (A), and
a reflective surface (6) that has a concavely curved first mirrored area (7) for receiving the IR
radiation (S) emitted by the IR radiation source (3), and that has a concavely curved second
mirrored area (8) that reflects the IR radiation (S) to the IR detector (4),
15 the measurement chamber (9) being formed between the reflective surface (6) and the
substrate (2).

In this way, a simple and compact design is possible with a large measurement signal and good dynamic measurement characteristics.

Figure 6

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